

**Information Systems  
Development Support (ISDS)  
Contract  
Introductory Brief**



# This Briefing

- Introduces you to our contract
- Identifies what we do
- Shows you our facility
- Identifies our capabilities

Our Contract Technical Monitor is  
Mr. Don Lord, (818) 306-6286



# Contract Overview

- Small Business, Task Contract (CAT X)
- Contract Start, 27 October 94
- Nine Year Contract
  - Five years + two 2 yr options
- Contract Type, CPFF/AF (3%/5%)
  - 87% Earned, 1st Award
  - 88% Earned, 2nd Award
- Prime Contractor, Pacer/Infotec
  - Sub, Computer Sciences Corp.

# What We Do For JPL

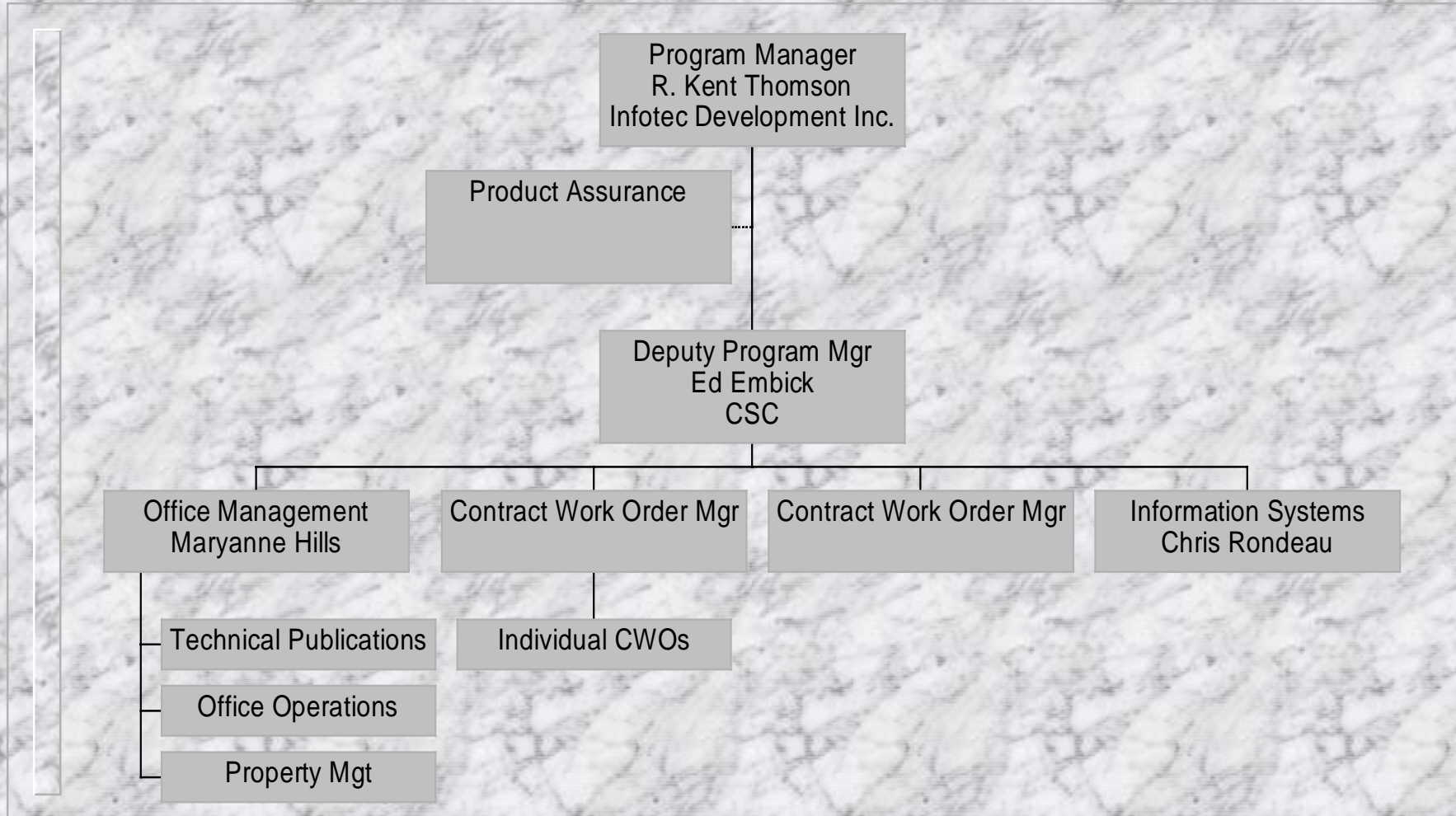
- Systems Engineering and support, and computer software development and maintenance for JPL systems associated with:
  - The **Deep Space Network** (DSN) tracking, pointing, data acquisition, command, telemetry, monitor and control, communications, data processing, radio science/Very Long Baseline Interferometer (VLBI), and network support systems.
  - The **Advanced Multi-Mission Operations System** (AMMOS) telemetry, data acquisition, command, distribution, data processing, and display systems.
  - **Institutional Management Information Systems.**



# ISDS Core JPL Capabilities

- We have the only current core knowledge of several major DSN Subsystems and Elements
  - We are helping JPL revolutionize their Institutional Business Systems
  - We are actively developing H/W for JPL
  - We are a LMMSC CSOC Team Member
  - We are the only support contractor at JPL with a T3 connection
- Institutional
    - Electronic Forms
    - Electronic Surveys
    - Property Management DB
  - Year 2000 Compliance
    - Antenna Control, OVLBI, MSW, SIV, NCP CS
  - Deep Space Network
    - Radio Science
    - Multi-Use Software (MSW)
    - Subsystem Interface Verifier (SIV)
    - Fault Tolerant Data Delivery (FTDD)
    - NCP Common Services and Monitor/Control Infrastructure (NCP CS)
    - Ground Communications Facility Monitor and Control Processor (GMP)
    - Software Production Management and Control (SPMC)
    - Telemetry Channel Assembly (TCA), Ground Controller (TGC), Simulation Assembly (TSA) and upgrades to accommodate RNS and Advanced Comm Server (ACS)
    - VLBI Ground System Data Processing and Archival

# Program Organization/Staff





# ISDS Facility

- 18,000 sqft ,110 modular offices
- 100TX LAN
- climate controlled lab
- 1/2 block from fwy
- keyless, monitored access control
- T3 connection to the NASA Net
- Underground parking



# Capabilities

- S/W Development
- H/W Development
- Information Systems
- Staff



# S/W Development Capabilities

- We Work With Many Software Languages
  - C, C++, Ada, Fortran, Java, Java Script, J++
- We Have a Rich Development Environment
  - We use EasyCASE
  - Pentium PCs
    - Win 95, NT 4.0, XWin32 X-Term Emulation
    - MS Office 97 -- Word, Excel, Powerpoint, Project, Access
  - Network
    - 10 BaseT, 100 Base TX/VG all integrated/segmented
    - T3 to JPL
    - Sun, Microsoft NT 4.0 and Netware Servers
  - Platforms on site
    - Sun Ultra 1/2, Sparc 10/20, ModComp, VX Works, OS/2, PDOS

# Robust S/W Development Methodology

## ■ Tailorable Methodology

- Task Size, Risk, Duration
- Both Structured or OO Methodology
- Accommodates Reuse, COTS Integration
- Considers Level of Organizational Change

## ■ We Use CSC's Development Methodologies

- Digital Systems Design Methodology (DSDM)
  - Incorporates MIL STD 498 and NASA D4000 initiatives
  - Mapped to ISO 9001
  - Software Development Life Cycle Multiple Build Approach
  - Integrated QA, CM, Project Management
  - Requirements Definition and Early Attention to Integration, Testing
  - Documents are a "Natural Byproduct" of the Work
- "Catalyst" commercial development methodology for Rapid Application Development (RAD )



# We Do Hardware Development

- **Design/Development (digital/analog)**
  - Schematic Capture
  - PCB Board Layout
  - PCB Auto route
  - FPGA Design
- **Test, Environmental (Thermal/Humidity/Pressure)**
- **Production**
  - Board Assembly
    - Wave/Hand Solder (Mil Std 2000)
  - Cable Assembly
  - MIL Q 9858A, MIL I 45208

# We Are Information Systems Technology Experts

- Information Systems and Network Development and Support
  - multiprotocol/multi-topology environments
  - NT/Unix/Linux/Netware
  - Routing/Bridging
  - Cabeling
  - WFW311, Win95, NT, Sun Solaris (Open Look, CDE), VMS
  - Transarc Distributed Computing Environment (DCE)
- Internet Server and HTML development
  - WebSite/Netscape/Microsoft
  - JAVA/J++/JAVA Script
  - Adobe Acrobat 3.0
  - Web Interfaced SQL



# Experienced Senior Staff

- Each have 13-30 years in the business
  - All previous successful program managers
- Previous clients include  
DOD/NASA/Commercial
- All have firm grasp of system development life cycle concepts and requirements from conceptual design through field support
- All have formal training in program management

# Pros for Use of ISDS

- Lab-Wide, Small Business Contract (SDB)
- Seven Years Left on the Contract
- We are a Lockheed Martin CSOC Teammate
- Proven Performance, Quality Products
- Cat X, **Non-accountable**



# We Want To Understand Your Requirements

We want to discuss your specific requirements to see if we have the talent you need. Please contact me:

R. Kent Thomson  
ISDS Program Manager  
2700 E. Foothill Blvd., Suite 200  
Pasadena, CA 91107  
PH 818.584.0878 FAX 818.584.1612  
[thomson@isds-server.jpl.nasa.gov](mailto:thomson@isds-server.jpl.nasa.gov)